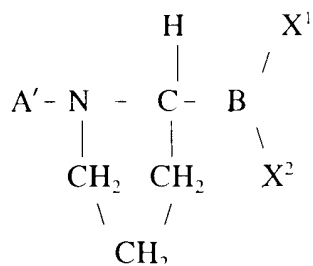


35. An isolated compound having the structure:



wherein each X^1 and X^2 is, independently, a hydroxyl group or a group capable of being hydrolyzed to a hydroxyl group at physiological pH;

wherein at least 96% of the bonds between the C and the B are in an L-configuration;

wherein A' comprises an amino acid; and

wherein the compound inhibits DPIV activity.

36. The compound of claim 35, wherein X^1 and X^2 are hydroxyl groups.

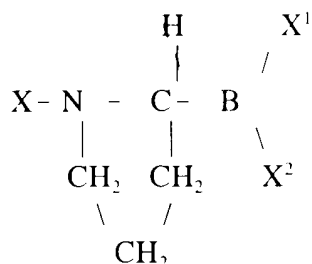
37. The compound of claim 35, wherein at least 97% of the bonds between the C and the B are in an L-configuration.

38. The compound of claim 35, wherein at least 98% of the bonds between the C and the B are in an L-configuration.

39. The compound of claim 35, wherein 99% of the bonds between the C and the B are in an L-configuration.

40. The compound of claim 35, wherein A' is valine.

42. An isolated compound having the structure:



wherein each X^1 and X^2 is, independently, a hydroxyl group or a group capable of being hydrolyzed to a hydroxyl group at physiological pH;

wherein at least 96 % of the bonds between the C and the B are in an L-configuration;

wherein X comprises an amino acid or a peptide; and

wherein the compound inhibits DPIV activity.

43. The compound of claim 42, wherein X^1 and X^2 are hydroxyl groups.

44. The compound of claim 42, wherein at least 97% of the bonds between the C and the B are in an L-configuration.

45. The compound of claim 42, wherein at least 98% of the bonds between the C and the B are in an L-configuration.

46. The compound of claim 42, wherein 99% of the bonds between the C and the B are in an L-configuration.

47. The compound of claim 42, wherein X is an L-amino acid.

$$\left\{ \begin{array}{c} \text{H} \quad \text{O} \\ | \quad || \\ \text{A} - \text{N} - \text{C} - \text{C} - \\ | \quad | \\ \text{CH}_2 \quad \text{CH}_2 \\ \backslash \quad / \\ \text{CH}_2 \end{array} \right\}_m \text{A}' -$$

wherein A and A' are L-amino acid residues such that the A in each repeating bracketed unit can be the same or a different amino acid residue.

49. The compound of claim 48, wherein A and A' are independently proline or alanine residues.

50. The compound of claim 48, wherein m is an integer between 1 and 10.

51. The compound of claim 48, wherein m is 1.

Please delete the originally filed Abstract appearing on pages 30-33 of the application as filed and insert the following paragraph therefor:

Abstract

Peptide inhibitors of DP-IV are provided. The peptide inhibitors have an isomeric purity of about 96-99 percent. The peptide inhibitors include one or more amino acids covalently

14141-14146. <http://www.ncbi.nlm.nih.gov/PMCID/PMC14141/>